UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/651,988	08/30/2000	Michio Kusayanagi	FUJ 17.433	2401

26304   7590   12/28/2006
KATTEN MUCHIN ROSENMAN LLP
575 MADISON AVENUE
NEW YORK, NY 10022-2585

EXAMINER
WONG, BLANCHE

ART UNIT	PAPER NUMBER
2616	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	12/28/2006	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

PTOL-90A (Rev. 10/06)

	Application No.	Applicant(s)	
Office Action Summary	09/651,988	KUSAYANAGI ET AL.	
	Examiner	Art Unit	
	Blanche Wong	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>*10 October 2006*</u>.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-15* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-6 and 8-15* is/are rejected.

7)☒ Claim(s) *7* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1.   Applicant's arguments filed October 10, 2006 have been fully considered but they

are not persuasive.

Applicant contends that portions in reference Kshiragar "only include description

of ATM switching" and "do not include any disclosure of connecting layer 1 connection

paths, let alone such connecting layer 2 link information. Remarks, p.9, para. 5.

However, Examiner disagrees. Examiner clarifies that layer 1 connection paths is the

physical link and/or transmission medium and layer 2 link information can be found e.g.

in ATM Adaptation layer or AAL, col. 2, line 3 and col. 7,line 15.

Claim Rejections - 35 USC § 102

2.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3.   **Claims 1-6,8-15** are rejected under 35 U.S.C. 102(e) as being anticipated by

Kshiragar et al. (U.S. Pat No. 6,016319).

With regard to claim 1, Kshiragar discloses a layer 2 link handler comprising: **(in**

DCPA connection setup, col. 5, ln. 18-19)

a path specification means **(connection server, col. 5, ln. 22)** that specifies one

path **(route)** of a connection request destination **(end-to-end) (the role of a**

connection server is to determine an end-to-end route, col. 5, ln. 23-24) from layer

2 link information **(AAL)** that is emitted from the user-side device **(user information**

path extending between AAL termination points, col. 5, ln. 26-27) at the time of a

layer 2 link connection request **(connection setup request, col. 5, ln. 34)**; and

a path connection means **(channel server, col. 5, ln. 27)** that causes said

permanent virtual connection path of layer 1 **(link, VPI/VCI)** connected between said

network-said device and the user-side device to connect to the one specified path

(channel or point-to-point link) of the connection request destination **(the role of a**

channel server is to maintain the state of channels, defined as a point-to-point

link on an ATM interface and to manage the VPI/VCI space and bandwidth, col. 5,

ln. 27-29).

With regard to claim 2, Kshirager further discloses said path connection means

switching on a layer 2 packet level **(IP, col. 4, ln. 36)**, transfers packets **(transmit a**

packets, col. 4, ln. 64) that arrive from said permanent virtual connection path of layer

1 **(a pre-established VCI, col. 5, ln. 2)** connected between said network-side device

(CRP server 203, col. 5, ln. 1) and the user-side device **(source host 310, col. 4, ln.**

67) to the one specified path of the connection request destination **(request query, col.**

5, ln. 1; see also ATM address corresponding to the destination host, col. 5, ln. 3-

4).

With regard to claim 3, Kshirager further discloses said path connection means

includes a setting means **(CRP server)** that newly sets one path **(returns a VPI/VCI,**

col. 4, ln. 63; selected VCIs, col. 5, ln. 50) of the connection request destination

specified by said path specification means **(the connection server communicates**

with channel server how to route its segment of the connection, col. 5, ln. 42-43)

and connects a path between the user-side device and the specified connection

destination **(the role of a channel server is to maintain the state of channels,**

defined as a point-to-point link on an ATM interface, col. 5, ln. 27-29).

With regard to claim 4, Kshirager further discloses said path connection means

includes a labeling means **(returns a VPI/VCI, col. 4, ln. 63; selected VCIs, col. 5, ln.**

50) that, based on layer 2 link information emitted from the user-side device at the time

of a layer 2 link connection request **(connection request query, col. 4, ln. 60-61;**

connection setup request, col. 5, ln. 34), assigns a label **(VPI/VCI)** of each layer 2

link of said connection request to a layer 2 packet from the user-side device **(source**

host), said path connection means **(the role of a channel server is to maintain the**

state of channels, defined as a point-to-point link on an ATM interface, col. 5, ln.

27-29) further includes a transfer means that transfers a layer 2 packet labeled by said

labeling means to the path **(VPI/VCI)** to said specified connection destination

(destination host).

With regard to claim 5, Kshirager further discloses said path connection means

recognizes labels **(VPI/VCI)** of layer 2 packets that arrive from said permanent virtual

connection path of layer 1 **(a pre-established VCI)** connected between said network-

side device **(CRP server)** and the user-side device **(source host)**, said labels being

assigned for each layer 2 link **(VPI/VCI)**, and transfers the layer 2 packets to the path to

the specified connection destination that corresponds to given labels **(point-to-point)**,

and recognizes labels **(VPI/VCI)** of labeled layer 2 packets that arrive from the path with

specified connection destination **(connection request)** and transfers the layer 2

packets to the permanent virtual connection path to the user-side device that

corresponds to given labels **(the channel servers respond back to the connection**

server with the selected VCIs, col. 5, ln. 49-50; see also IP over ATM, col. 7, ln. 37).

With regard to claim 6, Kshirager further discloses said labeling means includes

a selecting means **(returns a VPI/VCI, col. 4, ln. 63; selected VCIs, col. 5, ln. 50)** that,

when a label is newly assigned to a layer 2 link, selects an arbitrary available label

number **(connection admission control algorithm, col. 5, ln. 42-43)(it is inherent**

that it is an arbitrary available connection and thus VPI/VCI) and emits a labeled

layer 2 packet, and said path connection means handles the link of the labeled layer 2

packet that is assigned the same label number, the link of the labeled layer 2 packet

being sent back from the side of the device that received said labeled layer 2 packet

(returns a VPI/VCI, col. 4, ln. 63; selected VCIs, col. 5, ln. 50), as a link of a pair of

said layer 2 link newly assigned a label **(IP address to VCI mapping table, col. 6, ln. 66-67)**.

With regard to claim 8, Kshirager further discloses said labeling means, when it newly assigns a label to a layer 2 link, determines the label number by doing a negotiation mutually with another device side **(connection admission control algorithms, col. 5, ln. 45-46)**.

With regard to claim 9, Kshirager further discloses said labeling means, when it newly assigns a label to a layer 2 link, assigns a label with a label number directed by operation of a network management operation device **(CRP server)**.

With regard to claim 10, Kshirager further discloses said path connection means recognizes the labels of layer 2 packets that arrive from said permanent virtual connection path of layer 1 connected between said network side device and the user-side device, said labels being assigned according to the quality-of-service class of each layer 2 link **(QoS measures, col. 5, ln. 52)**, and transfers layer 2 packets to the path to the specified connection destination that corresponds to the given label **(the role of a channel server is to maintain the state of channels, defined as a point-to-point link on an ATM interface, col. 5, ln. 27-29)**.

With regard to claim 11, Kshirager further discloses said path connection means recognizes the labels of layer 2 packets that arrive from said permanent virtual connection of layer 1 connected between said network-side device and the user-side device **(see also analysis for claim 5)**, said labels being assigned according to the connection destination **(each host is registered, col. 7, ln. 30-31)** of each layer 2 link, and transfers layer 2 packets to a path to the specified connection destination that corresponds to the given label **(see also analysis for claim 5)**.

With regard to claim 12, Kshirager further discloses said path connection means recognizes labels of layer 2 packets assigned according to the distribution type of service in the IP packet **(IP,IPX, Appletalk, etc, col. 7, ln. 54)** within layer 2 link packets that arrive from said permanent virtual connection path of layer 1 connected between said network-side device and the user-side device, and transfer layer 2 packets to the path to a specified connection destination that corresponds to the given label **(see also analysis for claim 5)**.

With regard to claim 13, Kshirager further discloses said path connection means includes an extracting means that extracts a request connection destination name **(user information path extending between AAL termination points, col. 5, ln. 26-27)** from layer 2 link information emitted from the user-side device at the time of a layer 2 link connection request **(connection setup request, col. 5, ln. 34)** and a conversion table **(IP address to the VCI mapping table, col. 6, ln. 66-67)** that converts from said

connection destination name to a connection address, and a path determining means

(connection server, col. 5, ln. 23) that uses a connection address obtained from said

conversion table to cause a path to be connected between the user-side device and the

specified connection destination.

With regard to claim 14, Kshirager further discloses processing that specifies one

path of the connection request destination from layer 2 link information in said path

specification means **(connection server, col. 6, ln. 21)** is done under software control

(connection server software, col. 6, ln. 23) by a processor **(it is Examiner's position**

that there is inherently a processor that runs the software), and the path connection

means **(channel servers, col. 6, ln. 22)** that connects said permanent virtual

connection path of layer 1 connected between said network-side device and the user-

side device to a path specified by said processor after said path is specified, is

constituted by a switching means **(switch fabric, col. 6, ln. 30)** by means of hardware

(switch SNMP MIB, FORE ATM switches, col. 6, ln. 32).

With regard to claim 15, see analysis for claim 13.

Allowable Subject Matter

4.   Claim 7 is objected to as being dependent upon a rejected base claim, but would

be allowable if rewritten in independent form including all of the limitations of the base

claim and any intervening claims.

Conclusion

5.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

6.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Blanche Wong whose telephone number is 571-272-3177. The examiner can normally be reached on Monday through Friday, 830am to 530pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu can be reached on 571-272-3155. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

BW
December 21, 2006

HUY D. VU
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600